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St. Bartholomew's Hospital Journal,

MARCH, 1902.

"Æquam memento rebus in arduis
Servare mentem."—*Horace*, Book ii, Ode iii.

The Diagnosis, Prognosis, and Treatment of Intussusception.

*A Paper read before the Abernethian Society on
February 6th, 1902.*

By W. D. HARMER, M.C., F.R.C.S.

GENTLEMEN,—In reading Mr. Power's book on *Intussusception* you will find it stated that Hippocrates was a believer in enemata in the treatment of this complaint, and Praxagoras of Cos had opened the abdomen for its relief.

There is, therefore, nothing new to you in my subject, as it was familiar to the surgeons of that remote period. In any case it is a

curious complaint, and I hope to be able to arouse your interest in, and your discussion of, the symptoms and treatment that I am about to mention. It is only in recent times that intussusception has been recognised as a common disease. Statistics show in former years—as, for instance, from 1880 to 1890—that hardly any cases came to the large hospitals. On the other hand, since that date it is not uncommon for twenty patients to be treated during the course of a year at a single hospital.

This is due to a better knowledge of the disease amongst the doctors who see the cases, and although there are still mistakes they are less frequent, I take it, at the present moment.

In its usual acute form intussusception has very typical symptoms, but when of a chronic type these may be confusing. In the latter instance the symptoms simulate gastro-enteritis, a condition so common amongst children that the graver complaint is overlooked.

As it is so highly important that treatment of a proper kind should be commenced without loss of time, I intend to devote a few pages to the symptoms that are found with the disease, and especially with the acute form of disease that occurs in young children.

Ætiology.—The great majority of cases that have been reported have been spontaneous in their origin. There has rarely been a history of a fall, a blow, or other injury. In fatal cases it is not common to find anything definite, such as a polypus, that could have been the cause of the intussusception. There is, however, one interesting point in the anatomy of the disease, namely, that it is the rule, as Mr. Power explains, to find the mesocæcum of children abnormally long as compared with its condition in later life, so that the great mobility of the cæcum may predispose to the complaint.

In many cases I have found that indigestible food, such as an apple or some pastry, was given to the child shortly before an attack, and in one case that I can remember the child was absolutely well until a purgative had been given. Dr. Batten agrees with this theory. Speaking at the British Medical Association last year, he said that "he thought that the production of intussusception was largely due to bad feeding and powerful purgatives, and this accounted for the greater frequency of the condition in the children of the poorer classes."

In this connection the experiments upon animals, conducted by Mr. Power, may be cited; he found that when turpeth mineral was given to an animal, a very irregular contraction of the intestines was produced, the bowels being slightly contracted in some places and dilated in others, with the result that small intussusceptions were formed, the contracted portions having slipped inside the dilated parts. Again, the cause of paulo-ante-mortem intussusceptions is not anything within the bowel, but is probably the result of irregular nervous discharge at the last moment causing an irregular peristalsis: this has been observed also in dogs, and the occasional passage of fæces by human beings shortly before death is possibly also a case in point.

A normal peristaltic wave is due to a co-ordinated contraction of both the longitudinal and circular muscles of the intestine, and any deviation from this co-ordination might give rise to the condition that is required for the production of an intussusception.

Moreover ill co-ordinated nervous phenomena of all kinds are especially characteristic of the age at which intussusception is most common, and it is possible that many of these are produced, as

are "agonic intussusceptions," by some irregular inco-ordinated contractions which act for a short time only.

Again, it is known that waves of contraction travel down the ileum as far as the ileo-cæcal valve, and stop there, that new waves are started in the cæcum which travel along the colon, so that the cæcum may be dilated while the lower end of the ileum is contracted; in this condition any irregular contraction of the muscles, especially of the longitudinal muscles of the ileum, might cause the smaller portion to enter the larger.

As regards the appendix, although it is frequently invaginated with the rest of the cæcum, I do not see how it can have anything to do with the causation of the disease.

Previous history.—The previous histories are usually unimportant, but there are cases in which it is doubtful when the intussusception originated: perhaps it may occur, and then reduce itself for a time; if this is so it is possible that some of the sharp abdominal pains that commence in children and last for a short time are intussusceptions that have afterwards reduced themselves.

Age.—This is certainly important. Sir F. Treves says that 25 per cent. are less than a year old; Mr. Eccles found, moreover, that of the cases that entered this hospital between the years 1879 and 1900, 65.4 per cent. were in children under a year old; and Mr. Pitts states that 82 cases out of 115 treated at St. Thomas's Hospital, which is approximately 70 per cent., were also under twelve months, so that it is obvious that a very large number of the cases affect young children.

The sex.—It is generally agreed that it is rather commoner in males than in females—61 per cent., Eccles; 67 per cent., Pitts.

With regard to the diagnosis, there is perhaps no acute disease of the intestines that may be marked by so little disturbance of the system; on the other hand, those symptoms that are present are generally typical.

It should be noticed that in nearly all instances the onset is sudden; the child is either sleeping quietly when it suddenly wakes up and begins screaming, or it is taking its milk and suddenly becomes violently sick.

In acute cases the vomiting is persistent, but very often the patients are relieved for a time and seem to be better, which no doubt accounts for many of them being brought to a doctor several days after the commencement of the disease. Whatever the history, by the time the child is seen there is generally more or less collapse; it appears pale, has an anxious, pinched expression, with hollow cheeks, bluish lips, and sunken eyes.

Restlessness is not usual, and although the children are sometimes peevish and irritable, it is far commoner and much more typical of the disease to find them very markedly apathetic. They take little or no interest in their surroundings when undisturbed; if a toy is given to them, they will play with it in a casual, unappreciative manner for a time, but soon tire of the amusement.

Although quite apathetic the children are obviously ill, and a facial diagnosis alone points to the grave illness. The pulse is generally feeble, of small volume, and very rapid, 140 to 160, or perhaps impossible to count. Respiration is quickened—on an average 40. The temperature is as a rule only slightly raised at first, and never subnormal.

Of the more definite symptoms, *vomiting, blood, and mucus* are called by Mr. Eccles the cardinal symptoms.

The *pain* is very important, and perhaps enough stress has not been laid on this particular symptom. It is present at some time, I believe, in nearly all cases. In its more typical form the pain is paroxysmal in character, coming at intervals, which may be definite periods—as, for instance, either every half-hour, or quite irregularly. As it occurs in young children the nature of the pain is difficult to describe, but the invariable screaming at the time shows that it must be an intense "colicky pain," very severe while it lasts. The pain is referred to the region of the umbilicus in most cases, and is generally relieved by pressure (as there is no peritonitis).

In cases where pain is absent the form of intussusception is usually ileo-cæcal, and there is a large invagination extending into the rectum, with very little strangulation of the bowel. On the other hand, ileo-colic forms have very acute pain, which is probably due to the great strangulation, owing to the tightness of the ileo-cæcal valve.

Vomiting is the most important symptom of this disease, because it is the only one that is invariably present. I say invariably because I found, after looking over a series of twenty cases at the Children's Hospital, that it was always present. Unfortunately it often occurs as simple sickness after food, the child bringing up its milk as soon as it is fed. As this is a condition common amongst

babies as the result of slight disorders of the stomach, it may not suggest the presence of intussusception. The prominent features are that it begins very suddenly, and often in a child who has had nothing of the kind before. It tends to recur after all food, and to get worse. Medicine only aggravates the condition, especially if of the nature of a purgative. The vomit often becomes bile-stained after a time, and occasionally may be faecal in an acute case.

The intensity of the sickness is directly proportional to the amount of the strangulation, and in most cases is very mild because the constriction is slight.

The vomiting is the symptom that suggests the abdominal condition, and leads to the discovery of the sausage-shaped tumour which is found in a large percentage of cases.

Blood and mucus.—It is interesting to note that of the twenty cases that I have previously mentioned eighteen are described with this symptom. As further evidence of this point I find that it occurred in 82 per cent. of the ninety-six cases referred to. When blood and mucus are passed *per rectum* by a child who is suffering from sickness and pain in the abdomen intussusception is immediately suggested. The amount passed is in nearly all cases small, and there is generally a history of its being found on the napkin, or, as often happens, the child tries to pass a motion, and after much straining only succeeds in expelling a small quantity, perhaps a teaspoonful of blood and slime. With this there is generally tenesmus, which must be regarded as one of the typical symptoms of the disease. If strangulation is acute the hæmorrhage is more profuse, and when large quantities of blood are passed gangrene is present in some form or other. In some cases that are marked by constipation the blood and mucus are only noticed when a rectal examination is made, or when an enema is administered. In this connection it should be noticed that, although there is more or less obstruction of the bowel, yet constipation is not the rule.

The abdomen in the majority of the cases appears normal, is flat and supple, and moves well with respiration. In cases of long duration, especially in the so-called chronic intussusception of adults, there may be distension, but not often to any marked extent. There is not as a rule great tenderness, but when present it is in the region of the tumour, and when palpation of the latter causes a fresh attack of pain it is a very significant point in the diagnosis.

Tumour.—In his article on this disease in *Albutt's Medicine* Sir Frederick Treves states that a tumour can be demonstrated in rather less than 50 per cent. of all cases. Mr. Eccles found that it was 73 per cent. in his series, and in mine it was fifteen out of twenty. It may be sausage-shaped, or very often is an elongated mass, that is doughy to palpation, and presents the peculiarity that it is apt to change its position at intervals and to vary in hardness. The hardening of the tumour, which is caused by the contractions of the muscles of the gut, and corresponds to the paroxysms of pain that accompany it, is a most important diagnostic element, and occurs, I believe, fairly frequently. It should always be sought for, and is especially useful in chronic intussusception where the diagnosis is much more difficult. The position of the tumour is quite indefinite. Perhaps it is more common to find a transverse mass lying in the region of the umbilicus, or sometimes of the ascending or descending colon, or in both the latter positions. If in the hepatic or splenic flexures it is exceedingly likely to be overlooked, owing to the deep position of the colon in those places. For example, I remember a case where the tumour occupied the splenic flexure chiefly, but it was not discovered even when laparotomy was performed. There was another in which there was indefinite resistance in the left hypochondrium, which afterwards proved to be an intussusception in the splenic flexure. In other cases where tumour is absent there may be ileo-colic forms, slightly invaginated so that a tumour would not be expected. In any case very careful palpation is required to demonstrate the tumour, and an anæsthetic may be needed.

Another interesting point to remember is that the apex of the intussusception may often be felt in the rectum—in thirty-three out of ninety-six cases collected by Mr. Eccles, and in seven of my series of twenty.

Again, as the cæcum generally moves its position in those cases where it is involved, there may be a hollowness in the right iliac fossa, its normal position.

This is called the "Signe de Dance." Treves thinks the sign absolutely useless, but I think in some instances it may materially assist the diagnosis.

To recapitulate, the patient is as a rule a young child, more often a boy, generally less than a year old: there has been a sudden onset of pain in the abdomen, accompanied by sickness, and in most

instances by the passage of blood and mucus from the rectum, with tenesmus: with this a good deal of collapse supervenes, with feeble and rapid pulse, and quickened respiration. The child becomes very apathetic, and obviously ill. Palpation of the abdomen discloses the presence of a tumour, the apex can often be felt in the rectum, and the diagnosis is obvious.

Treatment.—Turning now to the treatment of intussusception, I would say that there are two methods, and only two, that can be employed with a chance of success; namely—

1. Injection of fluid or air.

2. Laparotomy.

Consider for a moment to what the condition is really due. Some part of the intestine has slipped inside another portion, carrying with it the mesentery and the vessels contained therein.

There are on the table some specimens that I have selected of the various forms that occur; they are—

1. *Ileo-cæcal forms*, found in 44 per cent. of cases. In these the ileo-cæcal valve always remains at the apex of the tumour; the latter goes on increasing at the expense of the ascending colon, so that it is really an invagination of the cæcum and large intestine.

2. *Enteric forms*, found in 30 per cent. In these it is the small intestine only that is involved, and the tumour increases almost invariably at the expense of the lower part of the gut (descending variety).

3. *Colic forms*, which, including the rectal forms, are found in 18 per cent. These also are generally of the descending variety, and, of course, affect the large bowel.

4. *Ileo-colic forms*, found in 8 per cent. of cases. In these the small intestine slips through the ileo-cæcal valve, and the tumour grows at the expense of the intestine above, *i.e.* the ileum. This is the only form in which the intestine that is above increases the size of the tumour. It is obvious that in these cases there soon comes a time when no more of the ileum can be invaginated, and, as a rule, the tumours are very small, because of the difficulty that the ileum experiences in forcing its way through the fibrous ileo-cæcal valve.

In all of them there was compression of the vessels that supplied the portion of intestine invaginated, to a greater or lesser extent, with consequent impairment of the functions of the part. There is, in fact, a condition very closely analogous to a strangulated hernia of the intestine.

The treatment for the latter is to cut down and relieve before injury has been done, and where there is a doubt an exploratory operation is necessary.

I wish to emphasise that this equally applies to intussusception, and that early treatment of an energetic kind is essential; in those cases where the diagnosis is uncertain further steps must be taken.

An anæsthetic should be given, because it allows of an easier and more scientific examination of the abdomen, and, moreover, is necessary in all forms of treatment.

If after narcosis there is still a doubt, it is necessary to proceed with the same treatment as for other forms of intestinal obstruction. It is fatal to wait for any further light on the case, and far better to open the abdomen at once.

You may say that, with such a rule, needless operations would often be done: I went, therefore, to considerable pains to try and find a record of such mistakes, and could only lay my hands on two instances, so that I conclude that in hospital practice, at any rate, it is exceptional. On the other hand, it is not a rare occurrence to find an intussusception present at a post-mortem, which has not been suspected during life.

Now before I proceed to the details of laparotomy, I should like to say a few words upon the method of injection. It is found that injection is preferable to inflation of air because it is easier to introduce a fluid into the rectum, and the pressure that is applied can be more certainly controlled. Most people are agreed, therefore, and use a fluid. Normal saline solution or water is generally employed at a temperature of 100° F. or a little higher.

An anæsthetic having been given, the buttocks are well raised above the level of the head; a funnel is filled with the fluid and attached to a full-sized red-rubber catheter, which is then introduced into the rectum. An assistant raises the funnel about one foot above the level of the rectum. The abdomen is manipulated, and any variation in the position or size of the tumour carefully noted.

In favourable cases the tumour slowly recedes, but if this does not occur, the funnel is raised to a higher level, though never more than two feet in a young child, because of the great danger of rupture of the bowel.

If the treatment is now more successful, it is most important at

this stage to be sure that reduction is complete, because in many instances the mass of the tumour disappears excepting the last inch or so. I would warn you to be very careful, because if you leave the patient in this condition the tumour is certain to recur as soon as the child recovers from the anæsthetic; in fact, recurrence after injection is quite a common result, I am sorry to say, and caused in many instances by incomplete reduction. On this account it may be advisable to continue the injection for a few minutes after all traces of the tumour have disappeared.

After a reasonable time, if reduction is only partial and is not progressing, it is time to operate. Here I might remind you that injection should not be attempted unless instruments have been prepared for opening the abdomen.

Where should the abdomen be opened? In the majority of cases the middle line is the better because a more satisfactory examination is possible; only in rare instances, with a small and localised tumour in the region of the cæcum, should an incision be on the right side.

It is important to remember that an abdominal operation upon a young child is a serious undertaking; therefore it must be done quickly (by which I mean in ten or twenty minutes from start to finish), and, almost as important, the child must be kept warm, so that there shall be as little shock as possible.

As soon as the abdomen is opened, two fingers are introduced and the tumour located; this done, the intestine is carefully manipulated as it lies *in situ*. The invagination can often be reduced without any further disturbance of the abdomen, but if difficulty is encountered, it is better to bring the tumour out of the wound *en masse*, so that the condition can be seen, and necessary treatment applied without loss of time. By kneading the tumour with the fingers of both hands the apex can generally be made to retrace its steps, and it is not necessary to employ taxis.

After reduction, if the condition of the gut is satisfactory, it can be replaced in the abdomen and the wound closed. This is done rapidly and satisfactorily by the insertion of numerous interrupted sutures through all the coats of the abdominal wall, and tying them after they are in position. The wound is dressed with some appropriate preparation, and a firm bandage is applied. The child is then returned to a warm bed as quickly as possible.

Children are generally very restless after an anæsthetic, and therefore it is better to administer some drug that will quiet them; I think the tincture of opium, one minim for each year, is the best; and if there is any collapse it is better to give with it a minim or two of strychnine. Brandy also can be given freely to children who are suffering from collapse. There is one other point in the after treatment that I wish to mention, namely, that feeding must begin early, as the child has been starved since the symptoms commenced, and much of the collapse is due to want of food.

If the child is less than six or seven months old, and is being nursed at the breast, it is better to allow this to continue. The breast may be given as soon as the child has recovered from the anæsthetic, and shows an inclination for food.

I have described to you only the straightforward case of intussusception, such as occurs in those with a short history, but unfortunately complications are often present. Of these I mentioned Distension. It is not common, but is serious. For instance, with a distended abdomen the tumour is difficult to find, and may even be missed when the abdomen has been opened. (I mentioned previously such a case.) Even if it can be felt, there may be difficulty in bringing it out of the wound. In such cases the intestine must be punctured with a small tenotomy knife in more than one place if necessary, so as to evacuate the contents.

I remember helping Mr. Marsh to operate on a case where there was so much distension that a good deal of the small intestine had to be drawn out of the wound before the tumour was found. Afterwards everything was easy until we began to replace the intestine, which proved an impossibility until the contents had been evacuated.

The patient recovered, and I believe it was partly due to this treatment.

It is also a serious complication when it is impossible to reduce the tumour. This occurs in those cases in which adhesions have formed between the various layers of the tumour, and is especially common in chronic intussusception,—that is to say, in cases with a long history. In such a case the treatment varies according to the different conditions of the intestine.

Shortly it may be said that, if of the enteric variety, resection of the whole tumour and an end to end anastomosis, with a Murphy's button, is the only treatment. If of the large intestine, when the tumour is small, the same treatment seems advisable. When it is

large, the gut must be opened above the tumour; a further attempt can then be made to remove the invaginated portion from the inside, which is preferable to leaving it *in situ*. After that the two ends can be joined or brought into the wound so as to form an artificial anus, as seems best. If the tumour cannot be separated, a portion of the intestine that is just above must be opened and stitched to the abdominal wound.

At a later date, if the patient survives, a second operation can be performed to bring the ends of the intestine together. I may point out that nearly all these patients succumb; only about eighty are recorded in literature as having recovered.

I will read you Mr. Power's statistics from the Victoria Hospital. Fifteen cases needed excision of the bowel. In 7, an artificial anus was made; all fatal; 5, Murphy's button was used; 4 died, 1 recovered; 2, Maunsell's operation; both died; 1, circular enterorrhaphy; it died; and that is the usual record of these cases.

In cases where no treatment at all can be applied because of the collapse, the whole intussusception may slough and pass *per rectum*. Treves says that this takes place in about 42 per cent. of the cases, and the death-rate among those in whom it does occur is over 40 per cent.

When the gut is found with a very long mesocæcum, the question of fixing it to the right iliac fossa with sutures must be considered. There have been a few cases recorded in which there has been recurrence several years after the performance of laparotomy, and so if the greater mobility of the part has anything at all to do with the causation of the disease, it is better to try and correct this defect while there is a chance. It may be done very quickly, and at any rate does no harm.

Some surgeons go so far as to say that the appendix has an important bearing upon the disease, and therefore make a point of removing it. They also have in mind the prevailing custom of the American surgeons, who at the present time always perform appendicectomy whenever they open the abdomen. My own feeling is that the appendix has absolutely no connection with the causation, and it is a mistake to waste time in taking it away unless it is found to be in a damaged condition.

Peritonitis, when present at all, is generally localised; it only occurs in the worst cases and must be treated upon usual lines. If extensive the abdomen must be drained; this will give the best chance, but recovery is not to be expected except in very rare instances.

With regard to the relative value of the two methods of treatment that I have described to you, it is very difficult to be definite. Statistics are interesting, and as usual very misleading.

Since 1875 there have been 115 cases at St. Thomas's, and since 1879, 96 at this hospital. The treatment was as follows.

At St. Thomas's.—Twenty-three had injection only and 13 recovered, *i.e.* 56.5 per cent.; 76 had cœliotomy and 25 recovered, *i.e.* 35 per cent.; 11 had both and 2 recovered, 18 per cent.

At St. Bartholomew's.—Twenty-three had injection only and 18 recovered, *i.e.* 78 per cent.; 32 had laparotomy and 12 recovered, *i.e.* 37.5 per cent.; 26 had both and 7 recovered, *i.e.* 27 per cent.

At first sight one is struck by the extraordinary result of injection alone, 56 and 78 per cent. of recoveries respectively. It is misleading, however, because they were the picked cases of the series, and would probably have done equally well after primary laparotomy: when the cases in which injection was not successful are added the percentage falls to 44 and 51 per cent. Now at St. Thomas's the treatment, since 1897, has with one exception been primary cœliotomy with 41 per cent. of recoveries, and the same applies to the majority of cases at Bart.'s, 50 per cent. being cured.

There has been a tendency of recent years, in hospital practice at any rate, to perform laparotomy and not use injection.

At the British Medical Association last summer there was a discussion upon this question, and all the speakers were in favour of operation. Statistics show that its results are becoming better every year.

Taking the cases of cœliotomy at St. Thomas's—

Since 1898 (*i.e.* leaving out 97) recoveries are 43 per cent.

" 1899 " " 98 " " 50 "

" 1900 " " 99 " " 53 "

—there having been 17 cases treated with 9 cures.

I think, therefore, the preference for operation is sound, but I would not go so far as to throw out of court the other treatment, because under certain conditions it is very successful.

It should be tried in those cases with a history of less than twenty-four hours, provided firstly that the symptoms are not very acute, and secondly that the surgeon is prepared to operate at once if

necessary. The points in its favour are that it may completely relieve the symptoms; it may help a further operation by reducing the mass of the tumour; it does not add to the shock, I think, when not continued for too long a period. On the other hand, there is only one strong argument against it, in suitable cases of course, namely, that there is so much uncertainty about complete reduction.

For instance, I once saw a large intussusception treated by injection, with rapid disappearance of the tumour. Everything seemed satisfactory, but the child did not recover. At the post-mortem it was found that the intussusception had been displaced into the region of the splenic flexure, where it could not be felt.

I would sum up the treatment with these rules:

1. Injection should be used in cases with a short history and mild symptoms.

2. It should never be repeated.

3. If after injection there is the least doubt a small opening should be made, through which the abdomen can be explored.

4. In a large majority of cases primary laparotomy is more satisfactory to the surgeon and gives better results.

Prognosis.—It may be said of intussusception that the prognosis is unfavourable; the best statistics only show recovery in 50 per cent., and in isolated cases the chances are not nearly so good. There are certain factors in the prognosis which are very important, namely:

1. *The duration of the disease.*—Of the 211 cases mentioned previously—

85 had suffered less than 1 day; recoveries 51 per cent.

32 " " between 1 and 2 days; " 43 "

76 " " more than 2 days; " 24 "

These results are natural, and it is obvious that the prognosis becomes worse the longer the case is left without treatment.

2. *Sex.*—Forty-three per cent. of females and 30 per cent. of males recovered.

3. *The age.*—Statistics are unreliable, but from clinical experience it may be said that the older the patient the better the prognosis; patients less than three months old do not often recover.

4. *The condition of the patient.*—Most of the cases of intussusception occur in patients who have been quite well until the complaint began, and it is not by any means a disease of unhealthy or ill-nourished children; on the contrary, they are generally active and robust, which in itself is favourable to the prognosis. It is to be remembered that the shock of an intestinal obstruction increases not only with the time of existence, but also with the severity of the strangulation. A small intussusception, therefore, such as occurs in the ileo-cæcal variety (where the ileum has slipped through the ileo-cæcal valve), may cause far more shock and be accompanied by serious collapse.

Again, an infant who is still at the breast requires frequent feeding, and can ill afford to be starved; but when strangulation is severe the vomiting is incessant, and the child absorbs no nourishment; this also causes collapse. Now the amount of the collapse is very material in the prognosis, much more so than the age of the patient or the duration of the disease (the latter have been shown by statistics to be unreliable).

It amounts to this: the prognosis is good when the symptoms are slight and treatment is provided sufficiently early; the prognosis is bad when there is great apathy, a feeble and rapid pulse, a quick respiration, with a history of violent and persistent vomiting.

5. *The condition of the abdomen* has an important bearing upon the prognosis. When it is flat and supple, and moves well with respiration, reduction of the tumour is generally accomplished with ease; but if there is distension and rigidity of the abdominal walls the treatment becomes complicated. The distension is generally due to tympanites, namely, a simple distension of the coils of intestine without any general peritonitis. The latter is fortunately rare excepting in the cases with a long history, and usually occurs in connection with a tight stricture, with acute symptoms and marked collapse. Difficulty is to be expected in treatment. Even after laparotomy it is not easy to reduce the tumour. The gut often has to be punctured, and the intestine does not recover well from the over-distension. In the later stages diarrhoea is often present, and is a serious complication. It may confidently be said that the prognosis is always grave when there is any distension of the abdomen.

6. *The condition of the tumour.*—In many cases the smaller the tumour the worse the prognosis. As Mr. Power says, "a long tumour means a long colon, a long mesentery, a rapid production, and an easy reduction." I think that there is a great deal in this statement, and that to find the apex of an intussusception in the rectum improves the prognosis.

It, at any rate, signifies that the invagination has been produced easily, and that the gut is not very tightly constricted. Peristalsis probably continues, and causes the hardening of the tumour. The latter can only occur when blood is still flowing through the vessels of the tumour, and when the muscles and nerves remain undamaged, so that this particular sign is important, not only in the diagnosis, but also in the prognosis.

On the other hand, a small intussusception is often very troublesome: it cannot be felt distinctly through the walls of the abdomen, so that diagnosis is more difficult; the constriction is tight, and inflammation in the tumour more rapid and acute; adhesions begin to form at an earlier stage, and prevent an easy reduction.

I would say, therefore, that the prognosis is worse in proportion as the difficulty of reduction increases. If reduction is found to be impossible, the prognosis becomes very serious. The same may be said of any case where there is much injury to the walls of the intestine; even if the tumour is reduced without any tearing, there is a liability of gangrene at a later stage.

With regard to resection and anastomosis in these cases, they have often been performed, but rarely with success. The production of an artificial anus cannot be said to improve the chances, and to leave the patient without any treatment, on the assumption that the tumour may separate by itself, is practically the signature of the death certificate.

In connection with the various complications that may arise after the reduction of the tumour, there is little that can be added. I would simply mention the following:

Vomiting, when persistent, is difficult to counteract, and very soon produces collapse.

Tympanites and distension point to loss of tone in the intestine, and are dangerous if they persist.

Diarrhoea is exhausting, and is as serious as in other forms of strangulation.

Temperature: occasionally, after operations for the relief of intussusception, the temperature rapidly mounts to 104° F. or thereabouts; the cause is doubtful, and it does not appear to have any connection with toxic absorption; the result, however, is that the patient dies, and so it must be regarded as a very serious omen.

Peritonitis may occur after an abdominal operation, especially if the gut was in a damaged condition at the time. It is always a very bad sign, and means that the intestine has ruptured, or that germs are escaping through the walls of the gut.

To sum up, I do not think that you will ever be able to give a really good prognosis in any definite case of intussusception. I have known the most favourable cases to be operated upon and die without an assignable reason.

In this respect I might make the comparison to a child that has been burnt. In both conditions there is that sudden collapse that may come at any moment without any obvious reason, and continue, regardless of all forms of treatment.

All that can be said is this: given a suitable age, a short history, symptoms of a mild character, easy reduction, and, I would add, a competent doctor on the spot, then the prognosis is distinctly favourable.

In conclusion, gentlemen, I have to thank you for listening with such attention to a subject with which you are doubtless familiar: I have expressed my views upon the question, and I shall be much interested in hearing yours.

Two Cases of Internal Tumour with Unusual Symptoms.

By C. H. D. ROBBS, B.A.Oxon., M.B.Lond.

CASE 1.—A. B.—, male æt. 60.

History.—Chest trouble of some months' duration. Looks very ill, and complains of "tightness" about the heart. States that he has lost flesh lately, but is still very stout. During the three days previous to my first seeing him he had noticed a "tingling" and numbness of his legs, and he is now quite unable to move them.

Physical examination.—Chest: absolute dulness and loss of breath-sounds on the left side over the whole lung. Heart-sounds normal. Radial pulses equal. Pupils equal.

Neuro-muscular system: both lower extremities are completely paralysed, and sensation is lost from the iliac crests downwards. There is true paralysis of the sphincters; knee-jerks are absent.

Patient died two days afterwards.

Diagnosis.—The patient had the physical signs of left pleuritic effusion and of lumbar myelitis, and this raised the interesting point as to whether these separate conditions could be explained by a common cause. An aneurysm might cause the effusion and a dorsal myelitis. A tumour, by extension, might be responsible for the physical signs.

Post-mortem.—Left pleura full of fluid. Left lung very small and carneous; from its hilum a new growth extends along the diaphragm to the abdomen, where there is a huge mass involving the pancreas and extending into the vertebral column over the first and second lumbar vertebræ. Microscopically a small round-celled sarcoma, the primary growth being presumably in the lung.

CASE 2.—Mr. F—, æt. 55.

History.—Quite well until October, 1901, when he was treated for indigestion with some success. On January 12th, 1902, he had oysters for supper, was violently sick, and the next morning noticed that his neck was swollen.

Examination showed considerable swelling over left parotid region, which became greater and extended to the other side, forming a large "brawny" collar, not pitting on pressure, and extending down to the shoulders, rendering it impossible to palpate the clavicles or pectoral muscles.

After some three weeks the swelling gradually subsided, leaving large subcutaneous veins on the neck and chest.

Temperature throughout normal. The heart was apparently normal, but the pulse rate always rapid, 100 to 120. The radial pulses and pupils were equal.

With the subsidence of the swelling the indigestion became worse, the pulse more feeble, and the patient weaker, until on March 24th pericarditis occurred, proving fatal on the 26th.

Diagnosis.—The swelling of the neck appeared to be due to blocking of the superior vena cava (Clifford Allbutt's *System*, vol. vi, p. 397). The undoubtedly sudden onset suggested that an aneurysm might be the cause, the straining in the act of vomiting causing an extension of the sac. Beyond this there was no evidence of the presence of an aneurysm. I should state that the only abnormal signs in the chest were a few fine crepitations heard over the right front. There was one enlarged gland to be felt over the left clavicle.

Post-mortem unfortunately hurried and incomplete. A new growth was found about the size of a Tangerine orange occupying the inner and middle aspect of the right lung in close connection with the great vessels. A few secondary small growths were found in the left lung. The heart showed acute pericarditis with much effusion.

Chlorosis.

A Paper read to the Abernethian Society in the Spring of 1902.

By LIONEL JAMES PICTON.



ENTLEMEN,—I fear that I can lay before you this evening no new theory of chlorosis. I am not prepared to claim for any recently discovered internal secretion the rôle of acting as its causation. Probably everything I may mention as to the condition of the blood in this disease you are already aware of. Nor do I know anything of an infective source from which some suppose the disease to spring. Of toxins I shall have little to say, even of those absorbed from the alimentary tract; whilst the relation of congenital abnormalities of the vascular system to chlorosis is outside the scope of my knowledge.

But I trust that you may think it worth while to consider a review of such clinical and pathological phenomena of chlorosis as have most certainly been observed; to see if some general but sure idea of the nature of the disease do not shape itself naturally in our minds, as a result of such a rehearsal of facts; and to test, by the conception which we have so formed of the natural history of chlorosis, the scattered fancies and theories which are entertained concerning its nature.

I am well aware, gentlemen, that such an exercise has nothing novel or original; and that every one here has probably so thought

out the subject for himself. But I trust you may agree with me in thinking that an attempt to consider and examine the essentials of a common everyday disease like chlorosis is not foreign to the object with which such an association as the Abernethian Society was founded.

Chlorosis is a disease of young women; and those two facts of youth and sex are the most significant things about it. No explanation of it can be entertained which fails to suggest why it falls upon that particular section of humanity and no other. And here at once, without going further, we have reached the heart of the position; and must take our stand upon the axiom that young women have a liability to chlorosis, a tendency which they alone exhibit.

A third patent fact brings us a long way in our investigation, namely, that chlorosis is common, is found all over the world, in every race—young negroes, even, being very prone to it,—in every climate, in every class of society, in town dwellers and country dwellers, amongst the rich and amongst the poor. Nor has it a modern origin. It has not come, like dyspepsia, from America; nor is it a product of the movement called "the higher education of women;" for it is as old as romance, and the Lady of Legend, sick from love, and languishing in her tower, justifies the mediæval name for chlorosis—*icterus amantium*. In short, I think there will be no dissent from the view that chlorosis is universal in every land, and has been so from a time "whereof the mind of man runneth not to the contrary."

It may be well to dwell for a moment on the three facts that, I take it, we have all agreed on before proceeding to consider the more special characters of the disease. It is, we have said—

- 1st. A disease of youth.
- 2nd. A disease of females.
- 3rd. It is universally distributed.

Now these facts duly considered cannot fail to suggest that such a disease is of a different character from the run of diseases. Its incidence is not capricious, alighting here and there on an individual at any time of life; nor does it select any one type, but the strumous, the rheumatic, and the gouty, the robust and the delicate, are alike swept into its net. No doubt the peculiar idiosyncrasies of each constitution make modifications in the disease, but of that more anon. What we are here concerned with is that any young woman is liable to chlorosis, a fact which goes a long way towards the establishment of the view that the physiological condition of the blood in young women, that is its healthy condition, is chlorotic; or, if a pathological term be inappropriate to health, is normally modified in a direction similar to, but in degree less than, the alteration which takes place in the blood in the actual disease.

To put the matter from a different standpoint, chlorosis is only an exaggeration of a certain condition of the blood which in young women is normal and natural.

That, gentlemen, is the theory of chlorosis so far as it can be called a theory, which is based upon the sure grounds upon which I have already too much insisted—youth, sex, and universality. Later on I hope to mention certain facts and views which may help to support it, shape it, and give it definition. But I have thus early shown my hand, and sketched in rough outline the opinion I believe the chief facts support, in order that the lesser facts when we come to consider them may not distort our vision, and that the various theories which it will be our duty to examine may be tested by the criterion of whether they fail to accord with the essentials, though they explain the details never so well.

Leaving, then, this theory, but always bearing it in mind, let us pass on now to a consideration of the clinical features of the disease.

There is no common kind of anæmia in males at all comparable to chlorosis; so without attempting to answer the well-worn question, "can a man have chlorosis?" we may confine our attention to the female sex.

Chlorosis begins about the time of puberty, say, roughly, in about the fourteenth or fifteenth year. It may last continuously, but in varying degree, to the eighteenth or even the twenty-fifth year. It generally ceases after the woman becomes mature; but in a few cases it drifts into a chronic anæmia, not at all like the chlorosis proper in which it began—a miserable protracted malady, vitiating the patient's life, and bringing in its wake evils—hysteria, dyspepsia, irritability of temper—which react upon their cause, intensifying the anæmia which gave rise to them. It is the old story of a vicious circle.

The most of chlorotic patients, however, get well, as I have said, about the age of twenty-five at latest, generally much earlier. Treatment fortunately has much to say concerning the rapidity of recovery.

Thus the chlorotic period is one of change and disturbance of the bodily functions. The onset of menstruation and the time which elapses before the newly established function settles into regular ways is the period of life in which the disease chiefly shows itself.

Every schoolboy, as Macaulay would have said, knows that the colour in chlorosis is peculiar to that malady. It is not the mere unhealthy paleness of an anæmia which is secondary to constipation or to some other special cause. It is to be distinguished from the pinched white face of the syphilitic, and from the dull pallor of those whose tissues are impregnated with lead. The bloodless look which results from a severe hæmorrhage or a series of hæmorrhages is, again, unlike the typical chlorotic appearance.

That, as the name implies, is signalled by a greenish tinge, which rather shines through the skin than resides in it. The "green-sickness" is the old English name, and well it fits the disease. The typical colour is better seen in the fair than in those of a dark complexion, and for this reason, if for no other, it is often seriously stated that the fair are the more subject to the disease. A long series of blood examinations in a number of young women suspected of chlorosis, accompanied by an exact note of the colour of the hair, eyebrows, irides, and skin, and of the quality of the skin, whether of the opaque and thick or of the thin and transparent type, would be a valuable contribution to the natural history of chlorosis. But only such a record, of the existence of which I am not aware, could prove that the subjects of the condition are less often brunettes than blondes.

Be that as it may, the true chlorotic tint is a sign which is much more obvious in the fair than the dark; and it is well to leave the matter there for the present, admitting that in perhaps the majority of cases of even marked chlorosis the green tint is not recognisable.

Anyone who has ever seen a case of pernicious anæmia will recall the curiously pale, yellow complexion. The tint of the skin in that rare disease is lemon-yellow, differing entirely from the coarser canary-yellow pigmentation of bright jaundice. Again, it differs from the sallow icteric pallor of a patient who exhibits the cachexia of malignant disease.

With none of these has the colour of the chlorotic girl anything to do, and I only mention them by way of contrast, and to emphasise the fact that the colour in the green-sickness is *sui generis*, and is a very definite, special, and peculiar characteristic. It is a classical symptom of the disease; but nevertheless, as I have said, it is doubtful whether half of the marked cases exhibit it.

With pernicious anæmia chlorosis is not likely to be confused, for the former occurs principally in middle-aged people, especially men. But confusion has arisen between the melasma of Addison's disease and the chlorotic tint, so that cases of Addison's disease have been labelled chlorosis.

This is a less surprising mistake than might at first sight appear, for Addison himself is said to have come across the disease called after him whilst investigating cases of severe anæmia. It was his merit to clearly distinguish Addison's disease and pernicious anæmia as entities separate at once from each other and from chlorosis.

There is one form of pernicious anæmia to which young females are as liable as anyone else. I refer to the profoundly bloodless conditions which certain parasites produce in their hosts. The notorious guests are *Anchylostomum duodenale*, responsible for the "miners' chlorosis" in Egypt, and which produces a similar cachexia in the West Indies; and *Bothriocephalus latus*, which is a common parasite of the peoples on the shores of the Baltic.

With regard to chlorosis in the dark races, my experience is very small and only allows me to speak of chlorotic negroes and half-caste creoles, in whom the nail-beds and mucous membranes are pale, and the skin and hair lose their gloss and become dull.

Here, however, at home in England, the diagnosis of chlorosis is seldom complicated by such confusing possibilities.

The colour of chlorosis, then, we need say no more about, save to mention in what parts of the body the pallor is most apparent. The face is generally pallid, but may be red—"chlorosis florida." Of the lips the same may be said, and I am sure that very red lips are not inconsistent with a low hæmoglobin estimation. Still, as a rule, the lips, gums, and buccal membrane show reliably the degree of bloodlessness.

The colour of the lachrymal caruncle is said to be the most trustworthy index—an observation which I fancy is very valuable, and worthy to be daily borne in mind by every practitioner of medicine.

A good and practical way of judging the colour of the blood is to look at the nail-beds. In one of the Sherlock Holmes stories an

incident is mentioned which illustrates clearly how not to examine the nail-beds. "Mrs. Lyons had resumed her seat. Her hands were grasping the arms of her chair, and I saw that the pink nails had turned white with the pressure of her grip." To judge properly of their colour the fingers should neither be firmly flexed, as Mrs. Lyons' were; nor stiffly extended; but they should be lightly and loosely flexed, and compared with a standard colour, of which the handiest is the physician's own nail-beds if he be in good stable health himself.

So much for the colour of chlorotic patients.

Let us pass now to another classical sign of the disease. It is an old observation which never fails to surprise the student on first becoming acquainted with it, that even in a profoundly anæmic girl there is, in pure chlorosis, no loss of flesh, no wasting. On the contrary, the more severe the disease the fuller is the face, and the thicker the layer of flabby fat upon the muscles. Such patients, although still in their teens, and in health mere slender girls, often have a distinct roll of fat under their chin—in short, a "double chin." An interesting pallor with a tendency to *embonpoint* has had at various epochs a certain vogue. If you consult a volume of Lodge's portraits you cannot fail to be struck with these characteristics in the ladies of the court of the second Charles, who are there presented. The portraits of eighty years earlier, of the more austere yet more splendid court of Elizabeth, entirely lack such unhealthy features. In this connection it is interesting to contrast the manners of the two courts. I merely suggest them to your minds, and will not further dwell on them, except to recall that in the Elizabethan time it was said "the earl and countess rose at six, and breakfasted off herrings and a blackjack of ale," whilst in the later reign persons of fashion lay late of a morning, and for the first time in history the chocolate tray appeared at the bedside.

Sir Godfrey Kneller painted fat chlorosis; Hogarth often painted it; and in Spain Goya has painted it. The true Spaniard is proud of being fat. The skin in that nation is characteristically of a thick opaque white, or rather cream-colour. In chlorosis the fat looks flabbier, and the skin a more deadly ivory tint; but the greenish tinge does not show as the skin is not translucent. The Neapolitan *noblesse*, who are mostly *grandees* of Spain, also show the same points. I may mention as a curious accidental confirmation of the commonness amongst them of the type of pallor I have described, that their favourite jewel is a bright turquoise, a colour which would ill assort with the pink and white of the Anglo-Saxon maiden, but which worn in the ears of these southerners looks as if set in ivory. Here is a copy of one of Goya's works which shows what I mean.

I fear I shall have tried your patience with these details in labouring my point about fat chlorosis; but I am anxious that you should bear in mind a tendency to fatness as an outstanding feature of the disease; for, as will be seen in the sequel, it has a close relation to the explanation of the pathology of the condition.

Gentlemen, I have now mentioned the most primary and most important of the signs of chlorosis.

Summa.—The age and time of onset is youth—puberty to twenty-five.

The sex ♀.

The colour pale green in the fair, and especially in persons with translucent skins, but dead white in the dark, and especially in persons with opaque skins.

Finally, in pure chlorosis the subjects of the disease are fat, and do not lose flesh, but rather the contrary. If a chlorotic girl lose flesh, you know at once that besides chlorosis there is something else the matter with her; but of that more anon when we consider the complications.

The condition of the patient, whatever it is, which directly causes these signs gives rise to a certain group of symptoms which is very well known. They are breathlessness and palpitation, headache, particularly in the morning; lethargy, and amenorrhœa.

Instead of laboriously describing each of these symptoms one by one, I think that it will be better to comprise them all in a clinical picture of the disease; and afterwards there will fall to be mentioned about each certain special points. A clinical picture is notoriously a difficult task. Most attempts at them are well-nigh meaningless to a person not already familiar with the condition described. This is Matthews Duncan's: it occurs in his clinical lecture on "Amenorrhœa."

He says: "The commonest form of amenorrhœa is that of young girls still in their teens, or only lately past them, with chlorosis or green-sickness as well as cessation of menstruation, and whatever may be the true theory of such cases, we in practice regard and

treat them simply as cases of chlorosis. The condition is very frequent among girls brought from the country to boarding schools in town or to domestic service; both modes of life implying a large amount of work, with deficiency of open fresh air and of bodily exercise. In whatever manner produced, the disease is of great importance, leading, as it sometimes does, to disease of the heart, to renal disease, or to phthisis pulmonalis.

"The girl becomes languid, the skin, especially of the face, becoming pale and dull, or even very slightly greenish, the lips and mucous membranes generally pale, the appetite bad or curious, the tongue foul, the bowels torpid, the faces scanty, dark-coloured, hard; the pulse quick, the heart easily made to palpitate, the breath easily made short. Sometimes there is puffiness of the face, and particularly of the eyelids; and sometimes anasarca, affecting of course chiefly the lower limbs. This state may disappear quickly or be easily cured, or it may persist long, or be only partially cured. Some cases do not get right till after one or more pregnancies. Some cases become inveterate, or are so from the first, and there have been found in some rare instances malformations of internal organs, specially of the heart and great arteries."

Gentlemen, I think it has often been said that for simplicity and clear vision the descriptions of disease, such as I have read, occurring in the lectures delivered at this hospital by Matthews Duncan, are hardly to be surpassed by those of any physician since Hippocrates. Anyhow, to my mind that picture is full of truth and force.

In taking the symptoms of chlorosis more in detail we ought to mention the breathlessness first of all. This, according to Professor Clifford Allbutt, who himself wrote the excellent article on "Chlorosis" in his *System*, is the characteristic complaint of the patient. "Dyspnœa," he adds, "is more persistent and incapacitating in chlorosis than in any other disorder, except, of course, in advanced organic disease of the heart." He gives as a probable reason of dyspnœa "incessant stimulation of the bulb by suboxidised blood." Gentlemen, in this Society the rights of free speech are shared by the humblest member, and, in spite of the great authority of the pen which wrote the phrase I have just read—"incessant stimulation of the bulb by suboxidised blood,"—I should like to protest against such an abuse of words. Examined, it is seen at once to be nothing more nor less than a thin paraphrase in physiological language of the homely word breathlessness. That the blood is crying out for air and appeals to the nervous system is well understood by any educated reader, and is true of all dyspnœa. We ought to be chary of accepting such grand seeming explanations, "full of sound and fury, signifying nothing."

That by the way, however. The great professor has the root of the matter right enough. Dyspnœa is the characteristic complaint of the chlorotic. From this spring palpitations, lethargy, headaches, swellings of the feet. Not only the bulb, of which we have heard so much, but every tissue in the body is denied its due of oxygen.

With this in mind listen to Sydenham describing the disease. "The face and body lose colour," he begins; "the face also swells; so do the eyelids and ankles. The body feels heavy; there is tension and lassitude of the legs and feet, dyspnœa, palpitation of the heart, headache, febrile pulse, somnolence, pica, and suppression of the menses."

What wonder, then, that the chlorotic girl complains of incapacity for work? The story in the pages of *Punch*, which raises a laugh against an able-bodied seaman, is true enough of her. He complains to the ship's doctor, "Well, sir, I eat well and I sleep well"—which may be the case in chlorosis,—"but when I see a job of work I come over all of a tremble."

It is hard to realise the case of the chlorotic. Imagine yourselves in a condition in which your energy has gone out of you. A vessel throbs in your temple, your head is heavy, you can almost hear your heart beating. To turn your head is an effort, to move your eyes a greater. To walk is to pant, to climb the stairs finds you dizzy and gasping at the top. Speech is an exertion, to get into bed or out of it an exhausting labour. Every task irks you, so that resolution forces you hardly to the simplest duty, whilst necessity drags you unwilling to perform the actions which are necessary to your existence. A fly at the first frost of winter could not feel more powerless to change his condition than you do.

Still further, imagine yourselves thus incapacitated, not for a day nor a week only, but for weeks dragging their slow length through many seasons. Then, gentlemen, if you have pictured yourselves thus, you will be able to understand the effects which dyspnœa produces in a chlorotic girl.

But there is another side to this picture which is very singular. The patient, in spite of the depression of all her functions, is often capable of reacting in a peculiar manner to the stimulus of excitement or awakened interest. As the hours of the day flow by she warms to the enjoyment of life. She is apathetic as Minna in the morning, as sparkling as Brenda when the candles are lit in the hall. Hear Dr. Coupland on the point in Allchin's *Manual*:—"It is a well-known fact that the subject of chlorosis, who is mostly a heavy sleeper, awakens unrefreshed, finds it difficult to rise, and experiences much lassitude throughout the day, does nevertheless considerably brighten up towards nightfall, and become more wakeful and energetic than her companions. Many a chlorotic is the life of the ball-room, but she pays the penalty of drawing so largely on her nerve-power."

Let us now consider some of the symptoms more in detail. The palpitation is sometimes one of the worst complaints. I think Sydenham was right in associating this especially with hysterical patients, but then hysteria, by which he meant a disorder or ataxy of the animal spirits, was, according to his doctrine, the prime cause of the green-sickness. He says of hysteria that, "falling on the vital parts, it creates such a palpitation that the patient makes sure that the sound of the heart beating against the ribs can be heard by the bystanders. This is commonest with the weakly and pale, and those who look consumptive. So also with those who have the green-sickness."

The physical examination of the heart in chlorosis reveals the fact that in a majority of the more marked cases there are signs suggestive of dilation. These are, of course, displacement of the apex-beat to the left, increase of the cardiac dulness, and hæmic murmurs.

The apex-beat in marked cases of chlorosis is generally in the nipple line, often outside it.

The cardiac dulness, on account of the mammæ, is particularly difficult to percuss in a woman in such a manner that the note elicited can be accurately interpreted. Moreover Prof. Allbutt points out that, the breathing being shallow in chlorosis, the lung is poorly inflated, and the edges of it accordingly recede from the surface of the heart, enlarging the incisura cardiaca and giving rise to an increased area of that absolute dulness on which the percussor lays so much stress. It seems to me to follow from this that the relative dulness is alone of much value as a sign of dilatation. But the relative dulness is hard to determine, and indeed, as a rule, can only be very roughly appraised. The conclusion to be drawn from all these considerations is that only large and certain alterations of cardiac dulness ought to be regarded as factors influencing diagnosis. Of such easily recognisable changes in the area of cardiac dulness extension towards the right beneath the sternum is said to be the most common.

The hæmic murmurs are more important, for the simple reason that they are easier to be certain about. To be sure, they present a difficulty in their distinction from organic murmurs; but that is to be overcome by a consideration of the restricted area over which they are heard, and by the fact that as the case improves under treatment they clear up. Far the commonest is a soft blow superimposed upon the systolic sound at the pulmonary base. Such a murmur is seldom heard at the aortic base, but is not infrequently made out at the apex. It is not my intention to follow this subject into the realms of cardiac physics. No one knows the exact cause of these murmurs. A good working hypothesis about the apex murmur, however, is the idea that it is due to actual mitral regurgitation. As the heart is admittedly dilated in most bad cases of chlorosis, I see no reason against such a theory. I know that such an assumption lands me in the necessity of justifying the term hæmic or functional murmurs as opposed to organic, and, to be short, I should be inclined to find the distinction in the fact that the one clears up and the other does not.

From the presence, then, of a systolic murmur, sometimes at the apex, generally at the pulmonary base, from the increase in cardiac dulness to the left and more markedly to the right, which is sometimes recognisable, and from the displacement of the apex-beat more or less outwards, it is fair to arrive at the important conclusion that the heart in chlorosis is more or less dilated. It follows that either the myocardium is at fault or that there is some increase of the peripheral resistance in the circulation, or that there is a combination of these factors.

We know that in chlorosis all the tissues are denied their proper oxygen, that every organ is hence atonic, and we may at once conclude that there is a degree of atony also of the myocardium. Is the dilation due to that alone, or does an increased peripheral

resistance complicate the question? The answer to this problem must be deferred for the present.

There here falls to be mentioned a group of cases in which chlorosis is associated with an undoubted organic heart lesion. Certain cases of mitral stenosis are closely connected with general nutritional disturbances, of which chlorosis must be reckoned as the chief. Indeed, if there be any causal relation between chlorosis and mitral stenosis, that would entirely explain the fact that the latter is common in women and very rare in the opposite sex. I merely mention the matter as a noteworthy circumstance, and will not pursue it further.

With the flabby dilated heart and hæmic murmurs typical of young women who have the green-sickness, we should naturally expect a somewhat rapid pulse of low tension. In fact, the pulse is often quickened. Sydenham says that it is febrile, by which he probably meant the same thing. He may have meant more, and have conceived that chlorosis is a subfebrile condition. Osler, indeed, says that, "as in all forms of essential anæmia, fever is not uncommon." However, probably what struck Sydenham as feverish was only the increased pulse rate, not the heat of the patient's skin.

On the matter of the tension of the pulse there appears to be great difference of opinion. I will read a few statements on the subject by authorities.

Osler: "The pulse is generally full and soft."

Allbutt: "The pulse, as Sydenham said, is generally quickened more or less, and is very impressionable by change of posture and the like. In opposition to some authors I am scarcely disposed to admit that in chlorosis the arterial blood-pressure generally ranges above the normal standard, though no doubt it is characteristic of chlorotic anæmia that such a rise may be observed occasionally, and, as a rule, the mass of the blood is not diminished and the artery well filled."

Immerman (q. Allbutt): "In chlorosis the arterial blood-pressure rises."

Bihler (q. Allbutt) holds the contrary view.

Coupland: "The pulse may be full and even of high tension, at least in the early stages of the disease, although with advancing anæmia and cardiac weakness it becomes softer and quicker."

I think I have quoted enough to show that on this subject of blood-pressure the doctors differ; and I would particularly ask you to note the Cambridge Professor's nicely balanced indecision.

Unfortunately, a person reading a paper is expected to mention his own opinions, so if I am asked mine I am bound to admit that I am as much in a fog on this point as my betters; but of this I am sure, that Prof. Allbutt is right when he says that the artery is well filled. It would be perhaps near the mark to say that the vessels are dilated and atonic; but that the blood nevertheless is enough in amount to fill them and give them a certain degree of tension. This amounts to saying that there must be more blood in the circulatory system than in health. Such a conclusion as that is so momentous that it would lead to a suspicion that the argument is too slender to bear such a superstructure were it not for other facts, which I will point out later, that firmly support the same theory.

Before entirely leaving the circulatory system it is my duty to mention the well-known venous and arterial murmurs. Sir Benjamin Richardson recognised a murmur in the subclavian arteries of persons who did hard work with their arms, and he called it the carpenter's murmur. Prof. Clifford Allbutt says this is a recognised sign of chlorosis. It certainly occurs in chlorotic girls, but whenever I have heard it, I have made a point of inquiring about the kind of work the patients do, and I think invariably have learned that they have much lifting to do or other special stress upon their arms.

No more need be said of subclavian murmurs, and we come now to the more important venous bruits.

Every one here has heard the famous humming-top sound in the jugulars of a chlorotic. It was first described by Dr. Bouilland in 1841. At that time a favourite toy on the Boulevards was a humming-top called "le diable," and Bouilland called the humming murmur from this "le bruit de diable." The Germans call it the "Nonnengeräusch," which means the same thing. Niemeyer used to teach that it is best elicited by putting the sterno-mastoid on the stretch, the chin being drawn by the physician's hand as far as possible over the shoulder opposite to the side being examined. It is generally louder in the right jugular. Hear Trousseau describe it: "On applying the stethoscope above the middle of the clavicle"—I pause to note that in the New Sydenham Society's edition this

is mistranslated "below the middle of the clavicle," an error which gravely affects the sense—"we have a rather dry blowing murmur accompanying the first sound of the heart. But during the ventricular diastole the murmur assumes a more musical character, louder, and resembling the purring of a cat when it is being caressed, or the noise of a spinning-wheel. Between the first and second sounds of the heart the murmur never altogether ceases. The name given by Dr. Bouilland, viz. 'sustained blowing sound,' is therefore appropriate. But it is important to remark that the continuance of the sound takes place during the cardiac diastole. Along with many other physicians I believe that the first sound is in the arteries and the second in the veins. On compressing by the application of a thread the lateral part of the neck above the point where the stethoscope is applied, in such a way as to interrupt the current of venous blood, we find that the second sound ceases." May I again interrupt Trousseau to point out that one's thumb does just as well as his thread? He continues, "Whatever there may be in this explanation, it appears to me that there are two classes of blowing sounds in the neck, viz. the simple sounds, purely arterial, and the double current sounds [bruits à double courant] so well investigated by Dr. Bouilland. The first belong to anæmia, whatever may be the cause of the anæmia. The others are peculiar to chlorosis. They are so decidedly chlorotic sounds that they precede or follow the most ordinary manifestations of chlorosis." This last remark by Trousseau is very noteworthy. Sir Dyce Duckworth, who lays great stress on the bruit in the neck in chlorosis, often says of it, "It is the first sign to come and the last to go."

In listening to the neck murmur in various cases of anæmia in the Surgery, I heard them so frequently that I got to be very sceptical of their pathognomonic value with regard to chlorosis; but coming across the passage in Trousseau which I have just read to you, the tangle in my mind was at once smoothed out. In short, it is the *bruit à double courant* which is constantly characteristic of chlorosis.

(To be continued.)

Some Pages from the Ancient History of Obstetric Medicine and Surgery.

The Mid-Sessional Address, delivered on January 16th,
1902.

By F. H. CHAMPNEYS, M.D.

(Concluded from p. 69.)

REVIEW OF THE HIPPOCRATEAN LITERATURE.

IN reviewing the foregoing we see that the practice of midwifery was in the hands of the *midwives*, who used various means for making labour easier—baths, lubrication and anointing of the genitals, and also drugs internally. In difficult cases they called in a physician. After delivery they looked after the mother and child. The physician had thus no opportunities of seeing normal labours, and the ideas of the time were in many respects erroneous. The description of head presentation as the only normal one was correct, but it was believed that no others could be delivered without help; in footling cases, for instance, if the child was alive, cephalic version was performed; if dead, it was removed piecemeal. On the other hand, living children were never deliberately destroyed.

There can be no doubt that in modern times cephalic

version has been too much neglected, though the Hippocratean age overstated the case for it.

The anatomy of the soft parts was very little known, and the pelvis was hardly known at all. Physicians were naturally associated in the minds of the people with disaster and bloody measures, and were not called in if it could be helped. On the other hand, observations, so far as observations go, are generally excellent, considering the absence of anatomical knowledge.

Aristotle (B.C. 304 to 322).—His work on the natural history of animals contains many references to human beings. In speaking of menstruation he refers to the association of amenorrhœa and sterility, but says that the association is not constant; he describes menstruation during pregnancy, and gives his opinion that it is injurious to the development of the embryo. He refers to puberty, and gives its signs in both sexes, also the signs of conception. He disputes the theory that boys are carried on the right side and girls on the left, but asserts that girls are developed in the uterus later than boys (see above "concerning the nature of the boy").

He says that after conception the uterus closes up, and only opens again in the eighth month; he describes the symptoms of pregnancy, such as headache, heaviness in the limbs, dislike for food, vomiting, etc.; and says that a woman feels better when pregnant of a boy than of a girl; also that labour is easier in the case of a boy. The somersault by which a child changes from a sitting to a head-first position is described. He states that the duration of pregnancy varies in the human race; it can last ten, or even eleven calendar months. Viability dates from the seventh month; eight months children are viable, "especially in Egypt, but less so in Greece" (conf. Hippocrates concerning the seventh and eighth month foetus). He personally inclines to believe the Hippocratean view that eight months children are not viable, but that seven months children are, and that the *parents* of those who die are themselves in danger of their life. He doubts the occurrence of eleven months children, and considers that such alleged instances are errors of calculation.

As regards plural births, he thinks that the number at a birth does not exceed five, and says that twins are very common in Egypt. Superfoetation is rare, but it occurs, and he gives an instance of ten to twelve embryos being prematurely discharged as a consequence of superfoetation. (This probably belongs to the same class as a still more wonderful story, in which a woman was said to have been delivered of 365 foetuses at a time; the boys were all christened by one name, and the girls by another. It was probably a case of hydatid mole.*) Also of a woman

* The celebrated case of Countess Margaret, daughter of Florent IV, Earl of Holland, and spouse of Count Hermann of Hennebrüg, was supposed to have occurred on Good Friday, 1278. She was at this time forty-two years of age, and at one birth brought forth

bearing two children at a birth, one by her husband, the other by her lover, as proved by their likenesses; also of a woman who bore a seven months child, and two months later, at full time, twins which survived.

He also treats of the milk, of the beginning and end of fertile life, of sterility, and of the likeness of new-born children to their parents. He says that the semen received into the uterus is covered with a vascular membrane containing the ovum with its two membranes well described; it is nourished through the umbilical cord. He describes accurately the cord in the cow, and says that two veins penetrate into the interior of the foetus through the gate (porta) of the liver to the vena cava; two others run to the aorta at the spot where this divides. The human embryo lies with its nose between its knees, its eyes on its knees, and its ears external to its knees. At the beginning of pregnancy the head lies uppermost, at the end of pregnancy downwards. All but head presentations are unnatural. *The downward position of the head is due to its greater weight.*

In women labour pains are particularly violent in the legs. Women suffer more than animals, particularly such as sit much, and have not good chests to enable them to hold their breath well. Labour is caused by the movements of the child, which rupture the membranes and cause the escape of the waters; the child then follows, "the womb turning itself," and the afterbirth follows. (This gives a very curious view of anatomy.)

The division of the umbilical cord is part of the business of the midwife. Aristotle describes the treatment of the cord in detail: after the expulsion of the afterbirth it was tied with a woollen thread and cut; "in the opposite case" (? when tied and cut before the expulsion of the afterbirth) hæmorrhage occurs: if, however, the afterbirth does not appear immediately, the cord is tied and cut. Children which look weak and bloodless are recovered by skilful midwives, who press the blood back from the cord into their bodies.

In children the hands lie down by the sides, whereas in animals the fore-limbs are born with the head.

Immediately after delivery the child cries, brings its hands to its mouth, and voids meconium; the stools soon change with the incoming and swallowing of the milk.

No child cries before its complete birth, even when the head is born some time before the body. The functions of

the breasts are well described. Children are said to suffer often from convulsions, of which they generally die on the seventh day; for this reason they are not named before the seventh day.

Sterility, menstruation, capacity for conceiving, and diseases of the womb are among other subjects treated.

Where Aristotle describes what he saw his observations are excellent: in matters of human anatomy he depended upon the dissection of animals, as human dissection was not allowed; where this failed, he had only tradition to depend upon.

Plato (B.C. 430—348; therefore a contemporary of Hippocrates).—In the *Theatetus* we have some light thrown on the duties and work of midwives. A woman could only become a midwife when she was past child-bearing, thus being under the protection of Diana, who was herself childless, and therefore the protector of childbirth.

Midwives administered drugs, used incantations for the relief of labour pains and the expediting of delivery; they also procured abortions. Their duties included the arranging of marriages with a view to the production of healthy children.

They appear to have occupied an important position, and to have treated many diseases. Many midwives are mentioned by name.

In the *Timæus*, cap. xlv, sect. 91, occurs the following passage:

"The same is the case with the wombs and other connected parts of women—so called,—as forming an animal desirous of procreating children. This, when it remains without fruit long beyond its proper time, becomes discontented and indignant, and, wandering every way through the body, it obstructs the passage of the breath, and throws women into extreme difficulties (hysteria), causing all varieties of diseases."

It is impossible not to be struck, in considering the works of Hippocrates, Aristotle, and those near their time, by the curious mixture of accurate and acute observation with profound anatomical ignorance and the acceptance of old wives' tales. What is remarkable is the absence from it all of reference to occult influences, which did so much harm to medicine in later times.

It seems comparatively easy to account for all these points. The accurate observation was due to the healthy mental attitude of the time, specially exemplified in its great men—Hippocrates and Aristotle.

The anatomical ignorance was due to causes which are so well expressed by Dr. Payne, in a letter which he has kindly written to me on the subject, that I cannot do better than read it. He says:

"I think there is no doubt that among the Greeks dissection of the human body was generally impossible on account of the strong feeling about burial, it being thought that the happiness of the dead in the next world largely

365 infants—182 males, 182 females, and 1 hermaphrodite. They were all baptised in two large brazen dishes by the Bishop of Trus, the males being called John, the females Elizabeth. During the last century the bodies were still on view in the village church of Lordew, and most of the visitors to the Hague went out to see them as they were reckoned one of the curiosities of Holland. The affliction was ascribed to the curse of a poor woman who, holding twins in her arms, approached the Countess for aid. She was not only denied alms, but was insulted by being told that her twins were by different fathers, whereupon the poor woman prayed God to send the Countess as many children as there were days in the year.—Gould and Pye, *Anomalies and Curiosities of Medicine*, p. 147.

depended upon their being properly buried, whether previously cremated or not. Hence the strong feeling of duty on this subject (see *Antigone*). There was, no doubt, a possibility of examining bodies of barbarians and strangers killed in war, with regard to whom there was no religious feeling; also there was the opportunity of examining the bodies of the numerous female children who were exposed to die in waste places; but they do not seem to have made much use of them.

"It was different when the Greek philosophers and physicians founded schools in Alexandria. Here they adopted the Egyptian custom of embalming instead of burying, and some sort of dissection being necessary for embalming there was not the same objection to handling and cutting up the body.

"Thus at Alexandria there was a great deal of human dissection, Herophilus being one of the great anatomists. They also dissected *living* men, *i.e.* condemned criminals, and made experiments upon them. The horror excited by this practice led to its suppression, and it would seem that *the anatomy of the dead* fell under the same condemnation. So human dissection went out, having lasted perhaps two centuries or less; and in the time of Galen it was either prohibited or entirely disused.

"The works of the anatomists before Galen are hardly known; but it seems that their statements about anatomy may have been more correct, as founded on human dissection, than Galen's, which were founded on dissections of animals.

"Why the Romans had such a strong feeling against human dissection is not quite clear; but it is certain that there was a very strict public opinion on the subject (I have not heard of laws against dissection). They objected to Galen's dissecting and making physiological experiments on *monkeys* because they were like men; hence his investigations of the nervous system were made chiefly on pigs and oxen. Galen speaks of having examined the dead bodies of some barbarian soldiers killed in battle, but this would not have meant systematic dissection. Of course Christian ideas were at first antagonistic to dismembering the human body, which was expected to rise again, and even in Galen's time Christian ideas had considerable influence, though not recognised."

The old wives' tales are derived from the same source in all times. Where you have women gossiping, especially about matters peculiar to their sex, and still more particularly when they are primarily the sole guardians of the treatment of midwifery and the diseases of women, in which they are only partially instructed, you are sure to have such stories rife.

What would we not give for the opinions of a real Gamp of the age of Hippocrates!

I am not in any way stating that all women are gossips, nor am I discussing the question of the suitability of

women for medical practice, but merely state that partially instructed women in a domain monopolised by them are apt to weave fairy stories.

It seems rather strange that observers so acute as Hippocrates and his school should have accepted as many of them as we find in their writings.

Had I stopped to comment, either in praise or in criticism, upon each subject as it was mentioned my address would have run on into an endless dissertation. I have preferred to let most of the statements speak for themselves.

The Letters of Lord Smithfield to his Son.

Collected by JOHN STREET ROAD.



SERIES of letters have come into my hands which were written by this accomplished nobleman to his son, who seems to have studied medicine at St. Bartholomew's Hospital towards the end of the nineteenth century.

Lord Smithfield, though not himself educated for the medical profession, intended that these letters should direct and guide his son (whose talents were not of the highest order) in the footsteps of Hippocrates.

I feel that it is only fair to extend to others the advantages of Lord Smithfield's advice and warnings.

I.

DEAR BOY,—I am edified with the allotment of your time at St. Bartholomew's, of which your last letter gave me such a satisfactory account. You will not regret the time which you devote to the study of anatomy and physiology, though I would warn you of the perils which you will meet with in the dissecting rooms. Every virtue, if carried beyond certain bounds, sinks into its kindred vice or weakness; thus great learning will carry you into error, pride, and pedantry. You will find some of your companions that will talk in season and out of nothing else than their studies. They are never without a note-book in the one pocket and *Gray's Compendium* in the other; their conversation will teem with quotations from medical lore; and I would have you avoid such low company. Knowledge carried in the pocket may introduce you to the company of the Examiners, but it will by no means endear you to them.

The day, if well employed, is long enough for many things. One half of it bestowed upon your studies and your exercises will finish your mind and body; the remaining part of it spent in good company will form your manners and complete your character. What would I not give to have you read *Foster's Physiology* critically in the morning and understand him better than anybody; at

noon behave yourself better than any person in the square, conversing with the people, not of the rare-shows of the town, but politics, cricket prospects, and the like; and, in the evenings, trifle more agreeably than anybody in mixed companies.

You had better talk trifles elegantly to the most trifling woman than coarse inelegant sense to the most solid man.

Make your Court particularly and show distinguished attentions to such men as are best at the Hospital, highest in the profession, and in the opinion of the public. Speak well of them behind them when you think they shall hear, or in companies who you have reason to believe will tell them again.

Express your admiration of the Surgical Registrar, and of the many great men that the house of Anatomy has produced; observe that nature, instead of being exhausted by these efforts, seems to have redoubled them in the person of the present holder of the office; thus you will find him perhaps less critical of your writings when you meet him anon in the wards.

I would have you endeavour to get acquainted with the Warden, who is so eminently distinguished by all kinds of learning and merit; he can refuse more gracefully than other people can grant. And those who leave him the most dissatisfied as to the substance of their business, are yet personally charmed in some degree by the manner of his saying, "No! friend."

Remember to take the best demonstrator in anatomy, and be at some pains to learn the technical terms in the Latin language; for though you will not be an eminent anatomist, yet these anatomical matters are so frequently the subjects of conversation, particularly among such men as you will meet with on the banks of the Thames, that you will look very awkwardly if you are ignorant of them.

I mean that your stay at Bartholomew's should, and I flatter myself that it will be a useful and ornamental period of your education; but I fear there are many dangers for you to encounter.

I well know the general ill-conduct, the indecent behaviour, and the illiberal views of some of the inhabitants of your district; for you will get little knowledge, no languages (at least of the refined sort), and, I am sure, no manners from the hooligans of Clerkenwell. Be upon your guard, therefore, against their exhortations and invitations, and I desire that you will form no friendships with these people, though I have no fear that any of your fellow-students will be of their kind, becoming disturbers of play-houses, breaking the windows, and commonly the landlords of the houses where they drink.

My wishes and my plan are to make you shine and distinguish yourself equally in the learned and the polite world.

Deep learning is generally tainted with pedantry, or, at least, unadorned with manners; it is, therefore, not only

reasonable but useful that your evenings should be devoted to amusements and pleasure, this will be so much time saved and by no means ill employed.

Many people lose a great deal of time by reading. Thus I write whatever occurs to me, that I think may contribute either to form or inform you. May my labour not be in vain! Adieu.

An Ungrateful Patient.



HE grip of a cold thaw was dragging up the year
When my theme caught a chill, and felt a little
queer,

And thus it was Progressive Medicine found him.

Soon the bronchitic kettle was a-fizzing on the hob,
While half a dozen doctors were "working on the job,"

With their diagnostic hammerings to pound him.

Each thought he heard bronchophony, a whistle or a wheeze,
And said 'twas highly probable he'd commenced it with a
sneeze,

As they bristled him with stethoscopes to sound him.

They fumigated cresoline to disinfect his lung,
Placed five or six thermometers to boil beneath his tongue,

And with hyper-learned glances did astound him.

He had "concentrated" this, and "concentrated" that,
And "concentrated" nothing "without the slightest fat"

To counteract debility that bound him.

They gave him latest nostrums and hydrocarbon drugs,
They wrapt him up in blankets and rolled him up in rugs,

With a dozen fiery mustard leaves around him.

They telegraphed to London for an extra special nurse—
A fashionable æsthetic (the hyperbole is terse)—

Who, in temperature unvaried, did surround him.

They boxed him up in cotton-wool, in poultices, and paint,
Until the air within the room with iodine was faint,

And in jackets fore and aft did empound him.

But he creaked with emphysema, and from dyspnoea turned
blue,

Insomnia challenged Morpheus, and had a round or two,
While the rain of perspiration nearly drowned him.

The band of Æsculapians consulted night and day,
Though p'rhaps a little mixed in a scientific way—

While the hand of fate all silently unwound him.

They called in "star physicians" to shed their burnished
light,

Who said the "treatment was correct," with etiquette—
that's quite,

Yet the patient slipped his anchorage—confound him!

GALEN—UP TO DATE.

Notes.

SIR WILLIAM CHURCH has been re-elected President of the Royal College of Physicians for the fourth year in succession.

* * *

MR. D'ARCY POWER and Dr. P. Horton Smith are the Honorary Secretaries of the International Congress of Medicine to be held next year in Madrid.

* * *

MR. GASK and Dr. Bainbridge have been appointed Junior Demonstrators of Pathology.

* * *

THE Hichens Prize has been awarded to K. S. Wise.

* * *

THE Kirkes Scholarship has been awarded to E. G. Pringle; the Treasurer's Prize to A. Giusseppe; the Foster Prize to (1) F. B. Ambler, (2) C. D. Butcher (Lecturer's Prize); and the Harvey Prize to F. B. Ambler.

* * *

THE Annual View Day will be on May 14th. We understand there will be no dinner this year.

* * *

NEITHER of the Metropolitan Football Cups has fallen to the share of Bart.'s this year; but we heartily congratulate Guy's, who obtained the Rugby Cup, and whose team was decidedly above the average; and also Mary's, who once more carried off the Association Cup.

* * *

EVERY one will hear with regret that Mr. Nixon has resigned the Editorship of the JOURNAL. During his term of office he has fully maintained the standard of the JOURNAL, and our readers are indebted to him for many a witty and amusing article. His departure will be a loss not only to the JOURNAL, but also to the Musical Society, for which he has done so much during the past two years.

* * *

WE came across the following metaphor in a book sent for review the other day:—"Perhaps for our sleep we must drown our cerebral cells in a kind of auto-intoxication with the ashes of our waking fires."

* * *

SNAPSHOTS IN MODERN PRACTICE (FACTS).

1. Boy in Eton coat (æt. 14): "My mother sent me, sir, to ask you what your fee would be to vaccinate my sister and myself if we bring our own lymph?"

2. Paterfamilias (commercial gentleman): "I have brought my son to see you. He has a weak chest. I intend sending the sputum to the Clinical Research; I suppose you have heard of it. I have a friend in it. I have not been able to do so, as my son has not been spitting the last few days!"

3. Patient (in trade) picking up magazine from bed: "I wonder if you would like to look through the St.

—'s Hospital Gazette? There is rather a good article on the treatment of chronic Bright's disease!"

* * *

THE officers of the Abernethian Society for the ensuing year are—

Presidents.—Messrs. A. J. Fairlie Clarke and E. C. Elmslie.

Vice-Presidents.—Messrs. T. J. Faulder and S. B. Atkinson.

Hon. Secs.—Messrs. A. D. White and W. H. Hamilton.

Additional Committeemen.—Messrs. E. B. Aylward and L. L. Phillips.

* * *

TWO memorial tablets have been recently placed on the walls of the Church of St. Bartholomew the Less.

The one to the memory of Sir James Paget has been erected by the members of his family. The other has been subscribed for by Mr. Vernon's House Surgeons.

* * *

IT was with great joy that we read the article by Dr. Syers "On the Decay of Auscultation and Percussion," which he attributed to the introduction of the binaural stethoscope and neglect of the modern instrument.

Shortly after this appeared we overheard an instructive dialogue in a surgical instrument maker's shop.

Enter youthful student of medicine, who, after buying a pocket case full of impracticabilities, asks for a stethoscope, and thus addresses the shopman:

"Er, I suppose now all the chest specialists would use this double one?"

"Yes, sir; nobody in a good class practice has the wooden stethoscope."

"Thank you, I'll have this one."

Exit medical student with a weapon of unrivalled sagacity, guaranteed by the maker to give diagnosis, prognosis, and treatment of physical signs on both sides of the chest at once, price 11s. 6d., and cheap at that!

In the next scene we can picture a clinical clerk standing by his venerable chief, who with the despised "wooden thing" describes to the clerk's amazement a "*ringing second sound*," which to the possessor of the latest improvement in stethoscopes had suggested dimly the closing passages of Tschaikowsky's "1812" Overture.

* * *

THE *Practitioner* for March contains a delightful example of Parisian humour, which we take the liberty of quoting at some length, acknowledging our indebtedness to the said journal for saving us the trouble of looking for a translator.

"M. Doyen's newspaper report of his operation on Radica and Doodica has been made the subject of an amusing parody in that eminently respectable paper the *Temps*. The author records how he operated upon Dr. Doyen, whose exceptional cerebral activity had doubled his personality.

"By ill-luck the scissiparity was incomplete, the two persons remained attached to one another by a membrane extending from the umbilicus to the sternum. To distinguish them it was necessary to call one Radoyen and the other Doyenka. This at first caused no inconvenience, but with increase of age troublesome disagreements, grave incompatibilities of character and temper, became manifest between the two doubles.

"It was determined to separate them, and my scientific aid was invoked. The operation did not last twenty minutes. I had invited my friends the phenomena of Barnum and Bailey's circus, who are now indispensable to me. They were of the greatest use to me, particularly the man with the elastic skin. By stitching the skin of his abdomen to that of the abdomen of the living skeleton I constructed artificial Siamese twins on whom I made most interesting preliminary experiments. There were also present the armless man, who wrote at my dictation with his foot, and the pincushion man, who played a modest but indispensable part, as will presently be seen. The two monsters, Radoyen and Doyenka, were placed upon a table invented by me, covered with a sheet sterilised by means of a preparation which is my property. I took up my position on their right, so that the cinematograph should lose nothing either of my movements or my features. The superficial part of the portion of the membrane was formed by a cartilaginous plate of a certain thickness, which I divided with a bistoury made according to my directions. As is usual in my clinic, anaesthesia was produced by means of chloride of methyl. As I ceased to require my needles, my scissors, and my forceps, I stuck them into the cheeks of the pincushion man, that is what he served for. Underneath the cartilaginous plate I found, as was to be expected, a bridge of liver, seven centimetres in breadth by four in thickness, traversed by a large number of arteries, arterioles, veins, and venules. This was the time or never to use my original method of hæmostasis. I therefore performed extemporaneous crushing of the hepatic pedicle by means of my large double-lever forceps from Creusot, which weigh a million tons, but which can be set in motion by one finger, and which exert a pressure of 600,000 kilos.

"Happily for posterity the operation was completed before the cylinders of the cinematograph were exhausted. Radoyen was first carried to a neighbouring table, a compress invented by one of my usual assistants was placed in the wound, and the skin provisionally brought together with toothed forceps of which I recently published a drawing. Then came the turn of Doyenka. I sutured his abdominal wall, taking care to leave in a small drain of gauze sterilised by my ordinary attendant, whom I cannot recommend to my *confrère*. The operation had succeeded. As for Radoyen and Doyenka, I hope they will get over it."

Amalgamated Clubs.

ASSOCIATION FOOTBALL CLUB.

ST. BART.'S v. HASTINGS AND ST. LEONARDS.

This match was played at Hastings on Wednesday, November 13th, on the Central Ground, and resulted in a win for the Hospital by 5 goals to 2. The score, however, does not accurately represent the merits of the two teams, as the game was very well contested throughout, and had the home side been better in front of goal they might have made a very different result.

Bart.'s started by defending the Town Hall end, and for the first quarter of an hour the game was of a give and take nature, though at times some very fast play was witnessed.

The Hospital forwards then settled down and got more together, and from a good rush on the left wing Ward scored the first goal. Soon after Hastings equalised. After this goals were scored faster. Hastings scored one more and the visitors two (Ward and O'Brien), and the sides changed ends without any further score being recorded.

The second half was uneventful save for the addition of two more goals to the Hospital (Ward and Jones). The game thus ended as above stated in a win for the Hospital by 5 to 2. Team:

H. H. Butcher (goal); W. Gröne, W. S. Neale (backs); W. H. Jones, V. C. Upton, N. E. Waterfield (half-backs); H. N. Marrett, R. C. P. Berryman (right wing); C. W. O'Brien (centre); V. G. Ward, C. A. Anderson (left wing).

After the game both teams and the members of the Hastings and St. Leonards Football Club were entertained at the Castle Hotel to tea by the old Bart.'s men of the district, Dr. Howard Marshall being in the chair. After an excellent meal, to which needless to say every one did justice, a smoking concert followed, the music being provided by some well-known artistes.

Between the turns the following toasts were given:—"Success to St. Bartholomew's Hospital A.F.C.," proposed by the Chairman and responded to by Mr. C. W. O'Brien.

Dr. Howard Marshall in his speech, among other things, gave some good advice to both teams, suggesting that a great improvement would be effected if more attention was given to shooting at goal, and strongly recommended the home team to spend a short time of an evening in such practice. In conclusion, he wished the Hospital every success in their coming Cup tie.

On rising to reply, the Bart.'s captain, Mr. C. W. O'Brien, said that he was proud to be captain of a team which had beaten Hastings; he remarked that this was their eighth successive victory, and although he hoped the Hospital would always win, he thought that it would do them good if they were once beaten, and certainly it was time that Hastings turned the tables. He thanked the old Bart.'s men most heartily for their hospitality towards the team, and assured them that the Hastings match was always looked forward to with the keenest pleasure. The only flaw in the evening's enjoyment was the absence of the familiar face of Mr. Gabb, especially so inasmuch as he was the first to have started this annual gathering.

The Chairman next proposed "Success to the Hastings and St. Leonards Football Club." He pointed to the challenge cups on the tables, and hoped that next year more would be added to their number.

Mr. A. W. Cotton, in reply, said that they had had a good game, but he certainly thought that the best team had won; but with some of the Chairman's advice carried into practice great improvement would be made.

The Right Worshipful the Mayor then proposed "Our hosts" in fitting terms, which was responded to by the Chairman. This finished up the evening, and the visiting team returned to London, having had a most enjoyable day.

Abernethian Society.

REPORT OF THE COMMITTEE FOR THE YEAR 1901-1902.



ENTLEMEN,—Your Committee have great pleasure in presenting the annual report. It deals with the ordinary transactions, the attendance at meetings, the special business, matters of government, and the finances of the Society.

The ordinary transactions of the Society include the sessional address, July, 1901, by Dr. Ormerod; the sessional address, October, 1901, by Mr. Willett; and the mid-sessional address, January, 1902, by Dr. Champneys. Thirteen papers have been read: one by a member of the teaching staff, three by members of the junior staff, seven by former members of the junior staff, and two by other members of the Society. Several of these papers were accompanied by microscopical and other pathological specimens, and in particular an important paper by Mr. Gordon, on the bacteriology of scarlet fever, was copiously illustrated by the lantern.

Four clinical evenings have been held, numerous important and interesting cases being shown,—some for diagnosis, some as typical demonstrations, and others to illustrate the effects of treatment.

The cases belonged to this Hospital and to others, notably the Metropolitan and the Children's Hospital, Great Ormond Street.

In addition many important pathological specimens were shown. Accounts of all these meetings, either in the form of abstracts or full reports, have appeared in the *Hospital Journal*.

Fifteen new members have been admitted. The average attendance is thirty-four per meeting. The special business of the Society includes a Special General Meeting, held on June 21st, 1901, at which Dr. Norman Moore was unanimously elected Treasurer.

A present of three engravings was made to the Society by Canon Fleming; a vote of thanks was passed and communicated to the reverend gentleman by the Secretary.

A photographic engraving of the late Dr. Kanthack has been placed in the room.

The Committee beg to express their sympathy with Mr. Shruball in his enforced absence from his position as President during the last month. As a mark of appreciation of his services to the Society his office has not been declared vacant.

The government of the Society has involved the question of smoking in the Society's room, and the protection of papers. The former is now pending; the latter has been to some extent met by simple methods, which have undoubtedly been efficient. Reports were presented to the Society dealing fully with the whole matter, but no elaborate scheme was deemed advisable.

The Society has a balance at the bank of £11 16s. 6d.

Signed on behalf of the Committee,

W. SEYMOUR DANKS.

March 20th, 1902.

The Nineteenth Ordinary Meeting of the Session was held on Thursday, March 13th, Mr. Danks in the Chair. A paper was read by Mr. Picton on "Chlorosis," a full report of which appears in the *JOURNAL*.

The Annual General Meeting was held on March 20th, Mr. Danks in the Chair; the following officers for the ensuing Session were elected:

Presidents.—Mr. R. C. Elmslie, Mr. A. J. Fairlie Clarke.

Vice-Presidents.—Mr. S. B. Atkinson, Mr. T. J. Faulder.

Secretaries.—Mr. A. Denham White, Mr. W. H. Hamilton.

Additional Committeemen.—Mr. L. L. Phillips, Mr. E. B. Aylward.

The balance-sheet of the Society was read, and showed a balance at the bank of £11 16s. 6d.

It was decided to apply to the School Committee for renewal of the permission to smoke at all future ordinary meetings of the Society, an arrangement which, during the past year, has proved satisfactory. A vote of thanks to the retiring officers was passed, and the last meeting of the Session then adjourned.

Correspondence.

To the Editor of the *St. Bartholomew's Hospital Journal*.

DEAR SIR,—Dr. Champneys, in the very interesting address published in your issue for February, says the meaning of "on the stools" is really unknown. It is possible that so accurate an observer as Dr. Champneys refuses to recognise anything except what may be deemed clearly proven. But for the sake of any of your readers who are interested in the subject, and may not be quite so cautious, I venture to call attention to the old English "groaning stools." On p. 9 of Wolseley's *Life of John*

Churchill, Duke of Marlborough, will be found mention of the sale of the "groaning chair" in which Mrs. Winston Churchill "was delivered of her son John." Only recently I was given, or rather offered, a piece of heavy cake which was called the "groaning cake," and which was cooked in the honour of a primipara's baby. There is also, or was, groaning cheese. As regards the other translation, "wheels" (Jeremiah xviii, 3), the margin has it "frames or seats."

It seems to me possible that the potter therein mentioned as making a "work on the wheels" either had to use wheels to fashion the stools (seats), or the seats had wheels on them for purposes of mobility.

But the same Hebrew word, as far as I can gather from my clerical friends, may have two meanings, not otherwise than when lead in our tongue means in one place the metal, and in another the instrument used in sounding for nautical purposes, or, in electrical parlance, the wire from the battery cell to the electrode.

I have no doubt some of these (groaning) "stools" or "chairs" for labour are still in existence (as curiosities); that mentioned above was sold in 1782.

Towards the end of the address Dr. Champneys mentions the directions given to put labouring women on a night stool or, failing that, a "labour chair."

The connection between this sentence and the passage in Exodus seems so very suggestive, that I feel the lecturer must have very strong reasons for using the words "really unknown."

Writing on this subject reminds me how much time and strength are wasted by watching labours occurring in the usual left lateral position. It is a pity to keep the upright or semi-upright as a later resource when our patients are rapidly wearying. But we must conform to custom, and at present must sit by, secure the cord, and express placenta, etc., which any clean woman can do equally well—often better.

Apologising for the length of my letter,

I am, dear Sir,

Yours faithfully,

COUNTRY G.P.

Review.

CONTRIBUTIONS TO PRACTICAL MEDICINE. By SIR JAMES SAWYER, M.D., F.R.C.P. (Cornish Bros., Birmingham.) Pp. 309, 3rd edition.

A large variety of subjects is dealt with in this volume, which for the most part consists of a number of clinical lectures delivered during the past twenty years. In the present edition these lectures have been revised and brought up to date. In the first article the author discusses the ætiology and treatment of insomnia, in regard to which many useful hints are given, though the classification of the causes of sleeplessness is empirical rather than scientific. Perhaps the best of the remaining chapters is that on floating kidney. The book contains nothing strikingly fresh, and its style, always florid, is at times extremely involved. Nevertheless it is always sound, and will furnish agreeable and useful reading for the general practitioner.

The Rahere Lodge, No. 2546.

An ordinary meeting of the Rahere Lodge, No. 2546, was held at Frascati's Restaurant, W., on Tuesday, February 11th, 1902; W. Bro. Phin. S. Abraham, M.D., W.M., in the chair. Bro. Walton R. Read was raised to the Third Degree, and Bros. Harke, Yetts, and Dunn were passed to the Second Degree. A subscription of two guineas was voted to the Soldiers' and Sailors' Families Association. The W.M.'s of the other medical lodges in London attended the meeting as honorary members of the Rahere Lodge. There was a large attendance at the subsequent banquet.

Calendar.

- Apr. 29.—On duty. Dr. Hensley and Mr. Walsham.
 May 1.—Summer Session begins.
 " 2.—On duty. Sir Lauder Brunton and Mr. Cripps.
 " Examination for Medical Brackenbury begins.
 " 6.—On duty. Sir Wm. Church and Mr. Langton.
 " 9.—On duty. Dr. Gee and Mr. Marsh.
 " 13.—On duty. Sir Dyce Duckworth and Mr. Butlin.
 " 14.—View Day.
 " 16.—On duty. Dr. Hensley and Mr. Walsham.
 " 17.—Examination for Lawrence Schol. begins.
 " 20.—On duty. Sir Lauder Brunton and Mr. Cripps.
 " 23.—On duty. Sir Wm. Church and Mr. Langton.
 " 27.—On duty. Dr. Gee and Mr. Marsh.

St. Bartholomew's Hospital Students' Christian Association.

SUMMER SESSION, 1902.

MAY—JULY.

Meetings are held in the Inquest Room on Thursdays, at 4 p.m.

- May 8.—Members' Meeting.
 " 15.—Dr. Maxwell.
 " 22.—Rev. Prebendary Webb-Peploe.
 " 29.—Annual Meeting.
 June 5.—Col. Wroughton.
 " 12.—Missionary Meeting.
 " 19.—Dr. Soltan.
 July 3.—Rev. Geo. Tonge.

Examinations.

CONJOINT BOARD.

Second Examination.

Anatomy and Physiology.—W. G. Ball, R. H. Bott, R. A. Bowling, J. R. Briscoe, C. B. D. Butcher, W. R. Collingdridge, C. H. Cross, P. A. Dingle, C. Elliott, L. Gray, J. P. Griffin, J. R. Kemp, J. E. R. McDonagh, M. Reichwald, C. F. O. White.

The following completed the examinations for the M.R.C.S., L.R.C.P., at the January examination:—G. H. L. Whale, A. S. Woodwork, H. M. H. Melhuish, J. McBryde, G. W. Miller, J. A. West, G. W. Stone, A. C. Young, H. N. Marrett, R. D. Stacy, W. R. Read, J. B. Cook, H. G. McKinney, V. G. Ward, S. G. Mostyn, G. F. Gill, C. S. Woodwork, S. B. Atkinson, R. J. Waugh, J. W. Llewellyn, N. Leonard, P. G. Harvey, F. W. Jackson, L. E. Hughes.

Appointments.

BALL, C. R. H., M.R.C.S., L.R.C.P., appointed Assistant House Physician to the Metropolitan Hospital.

COPE, R., M.R.C.S., L.R.C.P., appointed House Surgeon to the Dorset County Hospital, Dorchester.

DANKS, W. S., M.B.(Lond.), appointed Civil Medical Officer to the South African Field Force.

JACKSON, F. W., M.R.C.S., L.R.C.P., appointed Surgeon-Captain to the Highland Horse.

LLOYD, W. F., M.B., B.C.(Cantab.), appointed Assistant Surgeon to the Windsor Royal Infirmary.

NIXON, J. A., M.B., B.C.(Cantab.), appointed Surgeon to the s.s. "Johannesburg."

NOKE, F., M.B.(Lond.), appointed Assistant House Surgeon to the Metropolitan Hospital.

SHRUBSALL, F. C., M.B., B.C.(Cantab.), M.R.C.P., appointed House Physician to the Brompton Hospital for Diseases of the Chest.

TA'BOIS, A. C., M.D.(Lond.), appointed Deputy Medical Superintendent to the Gore Farm Hospital.

WILLIAMS, E. C., M.R.C.S., L.R.C.P., appointed Surgeon to the P. and O. s.s. "Peninsular."

WOOD, M. D., M.D.(Durham), appointed Second Assistant Medical Officer to the Hayward's Heath Asylum.

YOUNG, A. C., M.R.C.S., L.R.C.P., appointed Junior House Surgeon to the Royal Sea-Bathing Hospital, Margate.

New Addresses.

ADDISON, CHRISTOPHER, Urcar Croft, Northwood R.S.O., Middlesex.

BOX, S., 47, Gordon Road, Ealing, W.

CHOLMELEY, W. F., 3, Waterloo Road South, Wolverhampton.

COLEMAN, F., 6, Mount Park Crescent, Ealing, W.

GUTCH, J., 28, Fonnereau Road, Ipswich.

KENNEDY, W., 6, Alexander Square, South Kensington.

MALBY, E., Avondale, Feltham, Middlesex.

NEVILLE, T. C., 238, Upper Richmond Road, Putney, S.W.

NIXON, J. A., 55, Venner Road, Sydenham, S.E.

SCORER, FRANK, St. Cuthbert's, Christchurch Road, Bournemouth.

SHUTER, G. P., Cleveland House, Chiswick Lane, W.

STEPHENS, J. W. W., 7, Quay Street, Carmarthen, South Wales.

STORRS, W. TOWNSEND, 39, Mount Ephraim, Tunbridge Wells.

TAPLIN, B. DUTTON, Thames Villa, St. John's Avenue, Bridlington, Yorkshire.

Births.

ANDREWS.—On April 15th, at "Martindale," Tonbridge, Kent, the wife of H. Arthur Andrews, M.R.C.S., L.R.C.P., of a son.

HARRISON.—On April 5th, at 320, Humberstone Road, Leicester, the wife of L. K. Harrison, M.B.Cantab., of a son.

PEARSON.—On March 18th, at Alicedale, South Africa, the wife of Maurice Grey Pearson, M.B., B.Sc., F.R.C.S., of a son.

Marriage.

HARRIS—SCALES.—At St. Mark's, Hamilton Terrace, N.W., on the 23rd inst., Herbert George Harris, M.D., B.S.(Durh.), M.R.C.S., L.R.C.P., son of the late W. T. Harris, Esq., of Worthing, to Hilda Mary, eldest daughter of G. E. Scales, Esq., of Ichleton, Cambs.

Death.

PEARSON.—On March 23rd, at Alicedale, South Africa, the infant son of Maurice Grey Pearson, M.B., B.Sc., F.R.C.S.